

A photograph of two children hugging in the rain. The child on the left is wearing a blue patterned shirt and a purple jacket. The child on the right is wearing a blue patterned shirt and purple pants. The background is a blurred green field with rain falling. A large, faint, stylized leaf graphic is visible on the right side of the image.

# ‘Enhancing Obesity Prevention in Adults and Children’

Healthy North Coast: Back to Health Conference

Nicola Kerr, District Manager Health Promotion MNCLHD  
Rachel Gerathy, Health Promotion Officer (Dietitian) MNCLHD



Health

# Acknowledgement

- I would like to acknowledge the Traditional Owners of the land in which we are meeting on today and acknowledge Elders past, present and emerging.



Health



# Why it's so important?



Adults suffer from chronic disease (47%)



of disease burden is preventable

3 top risk factors for chronic disease



Tobacco use (9.3%)



Overweight & obesity (8.4%)



Dietary risks (7.3%)

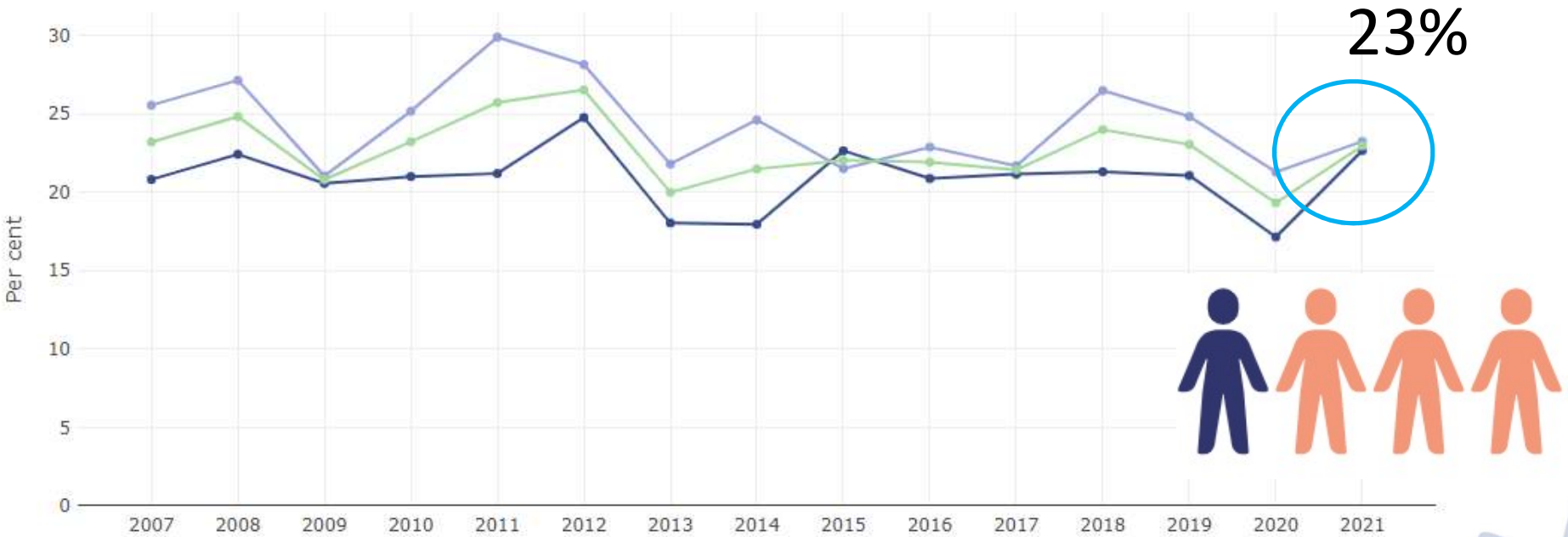


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**#1447 011**



# Childhood overweight and obesity in NSW 2021

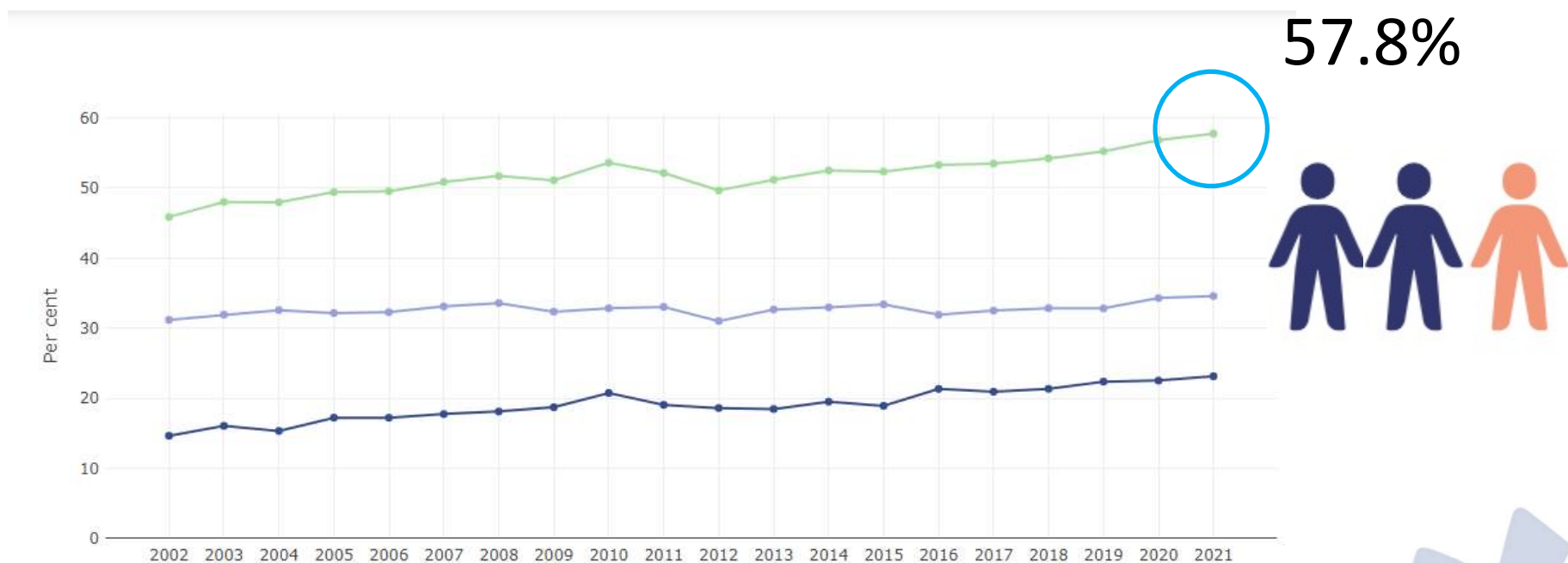


Boys Boys and girls  
Girls

Healthstats NSW, 2022



# Overweight and obesity in adults 2021



Health..

Overweight Overweight or obese  
Obese

Healthstats NSW, 2022

## Risk factors contributing to overweight and obesity

### Many school aged children in NSW have poor lifestyle habits



71% of children are not adequately active



44% spend over 2hrs/day on sedentary leisure



92% of children do not eat enough vegetables



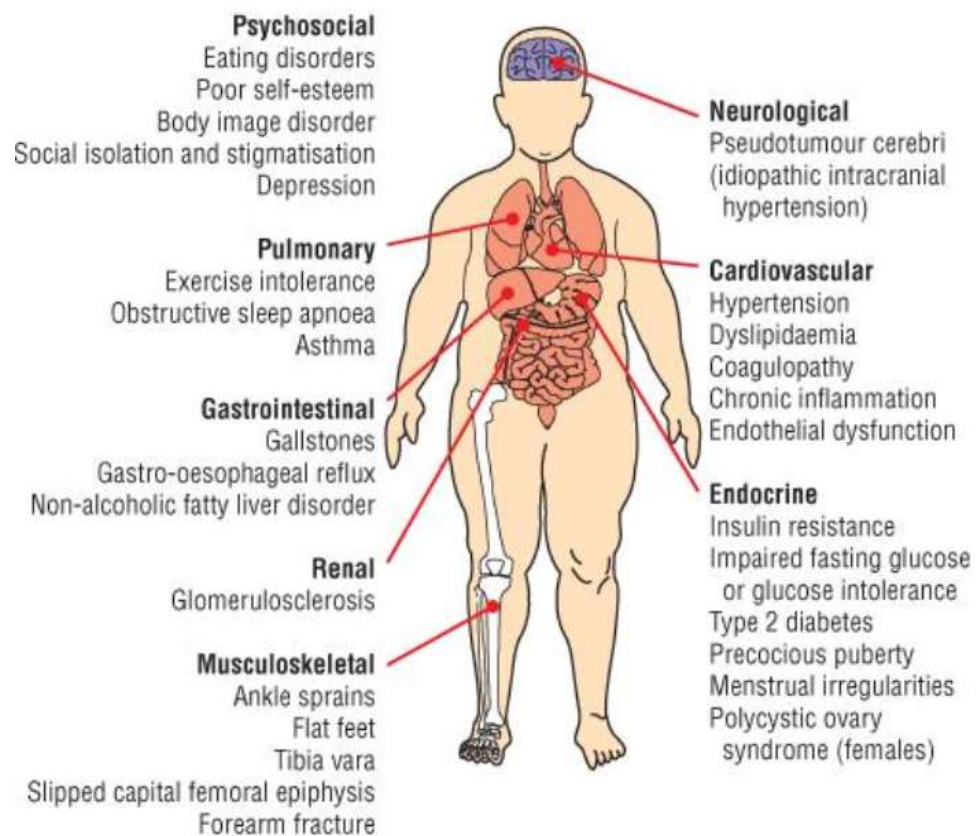
25% drink sugary drinks over 5 times a week



15.7% of NSW school children used active travel to get to school in 2015

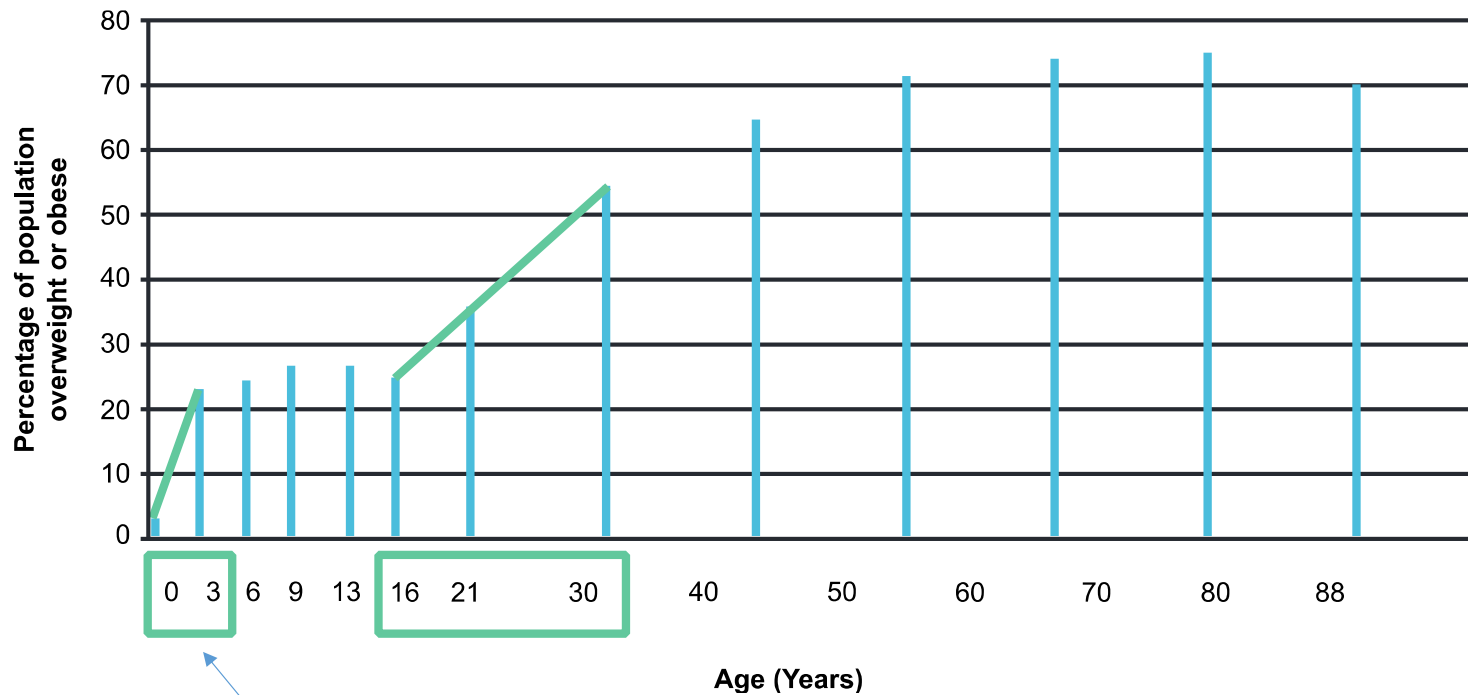


# Physical and psychosocial impacts of Obesity





# Addressing Vulnerable Periods



**Over 2/3 children**

who are well above a healthy weight go on to become adults who are overweight or obese



### 3 factors in infancy impacting weight gain in later life:

1. Feeding behaviours, particularly initiation and length of breastfeeding
2. Rapid weight gain in infancy
3. Duration of sleep

Prevalence of above a healthy weight by age, Australia, 2011-12  
Source: Australian National Health Survey 2011-2012

Moore, T.G., Arefadib, N., Deery, A., & West, S. (2017). *The First Thousand Days: An Evidence Paper*. Parkville, Victoria; Centre for Community Child Health, Murdoch Children's Research Institute.



# Education & Information

- **73%** of parents of primary school children who were above a healthy weight **perceived their children to be “about the right weight”**
- Less than **1 in 2** parents were aware of **recommended screen time limits**
- **1 in 4** were aware of **physical activity** recommendations



## Clinicians hold a powerful position in early intervention



[Youtube: The First Lady Takes On Childhood Obesity – watch 36:40 to 40:28](#)



# Prevention is everyone's business

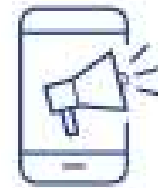
## Strategic directions



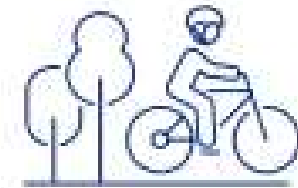
1. Prevention programs and services to support healthy eating and active living



2. Routine advice on healthy eating and active living as part of clinical care



3. Social marketing to support healthy eating and active living behaviour change



4. Healthy food and built environments to support healthy eating and active living

# When should we intervene?



Tracked along 50<sup>th</sup> percentile until 6 months



18 years. Gap year. **gained 3kg.**  
74kg BMI  
28.2kg/m<sup>2</sup>



30years. Engaged and lost 4kg. Regained after 12 months of marriage



33years Fell pregnant and **gained 15kg.** Never lost last 3kg. 77kg at 35years. BMI 29.3kg/m<sup>2</sup>



60years. 89.5kg BMI 34kg/m<sup>2</sup>  
Dx Diabetes and Metabolic syndrome. Sent to dietitian for 3 x Enhanced PC visits



Born just over 50<sup>th</sup> percentile for weight and age



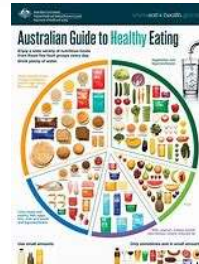
Fluctuated around the 85<sup>th</sup> percentile until 18. At 18years, 162cm, 71kg BMI 27kg/m<sup>2</sup>



Gradually tracked upwards until just below 85<sup>th</sup> percentile by 3 years



19-23years. Struggled with emotional eating and yoyo dieting. Fluctuated around 74kg BMI 28.2kg/m<sup>2</sup>



31 years. Fell pregnant, **gained 15kg** and lost within 12 months

Gradual weight gain since 35 years. Some yoyo dieting but approximately **0.5kg a year**



50years. Noticed increase in abdominal adiposity after menopause and finds it harder to lose weight. Dx Impaired fasting glucose and HT



# Routine Growth Assessments



MNCLHD rates:  
70%

## Why?

- To understand a child growth trajectory.
- To identify at risk children early.
- Provide brief intervention.
- Referral on to support services.
- Normalise growth assessments.



# Routine Advice & Clinical Service Delivery

**4 As** - a guide to support health professionals to initiate important conversations about healthy growth

## Assess

Routinely assess height and weight and plot into appropriate height and weight chart

Height Measured

162.5 cm

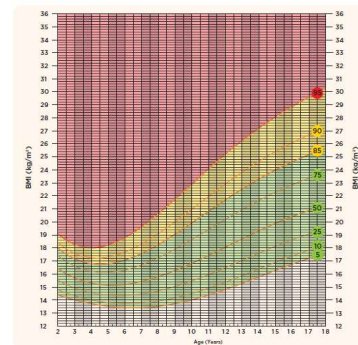
Weight Measured

55.7 kg

## Advise

Inform the family of the child's growth status

Girls: 2 to 18 years  
Body mass index (BMI)-for-age percentile chart



Below a healthy weight < 5th percentile (underweight)

Healthy weight 5th percentile to < 85th percentile

Above a healthy weight 85th percentile to < 95th percentile (overweight)

Well above a healthy weight 95th percentile and above (obesity)

Source: Centers for Disease Control and Prevention (CDC) (2000). The BMI-for-age chart takes the age, height, weight and sex of the child into consideration. The CDC charts are appropriate for children aged 2 to 18 years old.

healthykids for professionals  
NSW Health  
MAKE IT NORMAL  
pro.healthkids.nsw.gov.au

## Assist

Start a conversation about healthy behaviours for the whole family.

## Arrange

Make appropriate recommendation to a preventive health program.

**Go4Fun**  
Healthy • Active • Happy • Kids

# Conversation Starts for Health Professionals

## ASSESS

*"I routinely measure height and weight and plot BMI on a growth chart for all children. It helps me to identify any health concerns early and determines the type of support I can provide my patients and their families."*

*"Ideally, when we look at children at a similar age to [child's name] we expect them to be growing within the green zone."*

## ADVISE



## ASSIST



*"There are simple things that you and your family can do to support the whole family to be healthy."*

*"Which of these habits do you do well?"*

*"Have you heard of the Go4Fun program?"*

*"It's a free, 10 week healthy lifestyle program for kids aged 7-13 and their families. The weekly 2 hour sessions are run after school (during school terms) by trained health and community professionals."*



## ARRANGE



# Assist: Healthy Conversations

- Sensitive and non-stigmatizing
- Use good clinical judgement
- Use above a healthy weight
- Consider health literacy

*“There are some simple things that you and your family can do to support the whole family to be healthy.”*

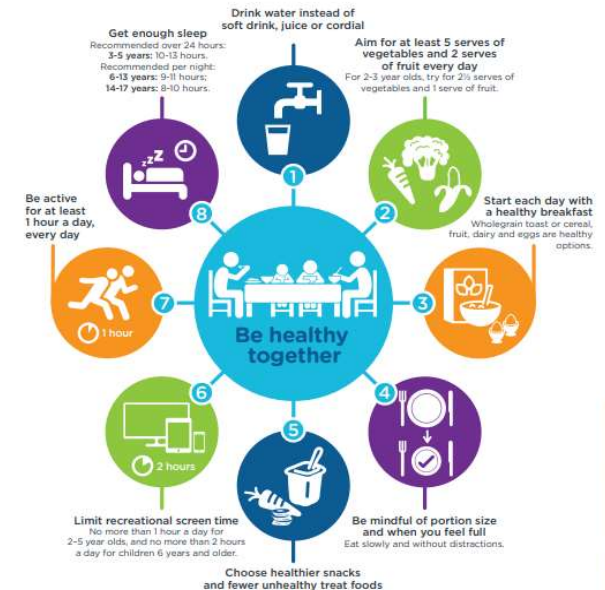
Identify recent changes, recognise their ideas and encourage these!

*“Are there any changes that you think would be realistic for you to make as a family?”*



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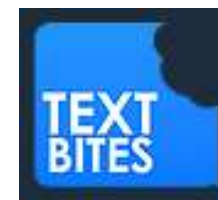
## Information is relevant for children aged 2-17 years 8 Healthy Habits



Resources to support your practice:

healthykids for professionals [Conversation Starters](#)

# Arrange: a referral to a community program



Pre-conception

0-6

7-13

13 – 18

16+

## Get Healthy in Pregnancy

FREE **6 month** telephone coaching service delivered by **university-qualified** health coaches to achieve **healthy gestational weight gain** and nutrition and exercise recommendations

Over **7,280** participants

## PICNIC

<https://www.picnicproject.com.au/>

FREE early feeding practice resources and peer education program for parents of **children 0-6 years**.

**MNCLHD program.**

Over **2,000 families**

## Go4Fun

FREE **10 week** nutrition & physical activity program for 7-13 year olds above a healthy weight

New **online** and **Aboriginal programs** launched

Over **11,000 families**

## TextBites

A research study. aiming to find out if a fun and supportive text message program can help young people lead a healthier and happier lifestyle.

## Get Healthy Information and Coaching Service

FREE **6 month** telephone coaching service delivered by **dietitians and exercise physiologists.**

Over **78,000 participants**



# FREE TELEPHONE-BASED HEALTH COACHING

Your **free** *NSW Health* service can help provide you with the support and motivation you need to reach your own healthy lifestyle goals.



EAT  
HEALTHY



GET  
ACTIVE



HEALTHY  
WEIGHT



REDUCE  
ALCOHOL



HEALTHY IN  
PREGNANCY



TOOLS &  
CALCULATORS



Health

[Success Stories » Get Healthy NSW](#)



# Further training

- [Healthy Kids for Professional website](#)
- [MNCLHD Healthy Kids local resources](#)
- [Health Literacy Checklist](#)
- [Having the conversation videos](#)
- [Get Healthy Service](#)

- Contact [mnclhd-hp@health.nsw.gov.au](mailto:mnclhd-hp@health.nsw.gov.au)

healthykids  
for professionals

Webinars Online Learning Videos FAQ Resources

Home Assess Advise Assist Arrange

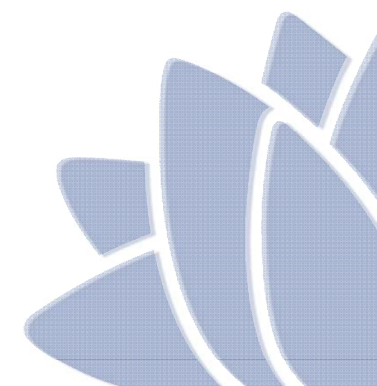
This website is designed to help health professionals manage children above a healthy weight, and their families.



RESOURCES  
**NEW Locally Developed Resources**

New resources have been co-designed with MNCLHD health professionals and can be accessed on the Healthy Kids MNCLHD page:  
[Healthy kids - Mid North Coast Local Health District \(nsw.gov.au\)](https://www.health.nsw.gov.au/healthykids/mnclhd)

**Healthy kids**

A screenshot of a webpage titled 'RESOURCES NEW Locally Developed Resources'. It features a navigation menu on the left with categories like 'Healthy kids', 'Healthy eating', 'Physical activity', etc. The main content area shows a grid of resource cards, including 'picnic', 'GO4FUN', 'TEXTBITES', and 'Get healthy'. At the bottom, there are 'CONTENTS' and 'MNCLHD Q4 2021-22 29'.

# picnic

PARENTS IN CHILD NUTRITION INFORMING COMMUNITY



Health



**Parent anxiety**

**Natural caution with new food**

**Considerate of 'learning to eat'**

**Evidence based feeding practices**



**Parent anxiety**



**Picky/fussy eating**



**Variety**



**Quality**



**Amount**



**Relationship**



**Health**

# Increasing Children's Liking and Intake of Vegetables through Experiential Learning

Remco C. Havermans

Maastricht University, Faculty of Psychology and Neuroscience, Department of Clinical Psychological Science, Maastricht, The Netherlands

## Parenting Styles, Feeding Styles, Feeding Practices, and Weight Status in 4–12 Year-Old Children: A Systematic Review of the Literature

Natalie Shloim<sup>1</sup>, Lisa R. Edelson<sup>2</sup>, Nathalie Martin<sup>2</sup> and Marion M. Hetherington<sup>1</sup>

<sup>1</sup>Biopsychology Group: Human Nutrition, School of Psychology, Institute of Psychological Sciences, University of Leeds, Leeds, UK; <sup>2</sup>Behavior and Perception, Nestlé Research Center, Lausanne, Switzerland

## DEVELOPMENT OF FOOD PREFERENCES

Leann L. Birch

Department of Human Development and Family Studies, Graduate Program in Nutrition, The Pennsylvania State University, University Park, Pennsylvania 16802; e-mail: llb15@psu.edu

KEY WORDS: children, food intake, overweight, obesity

## Learning to overeat: maternal use of restrictive feeding practices promotes girls' eating in the absence of hunger<sup>1–3</sup>

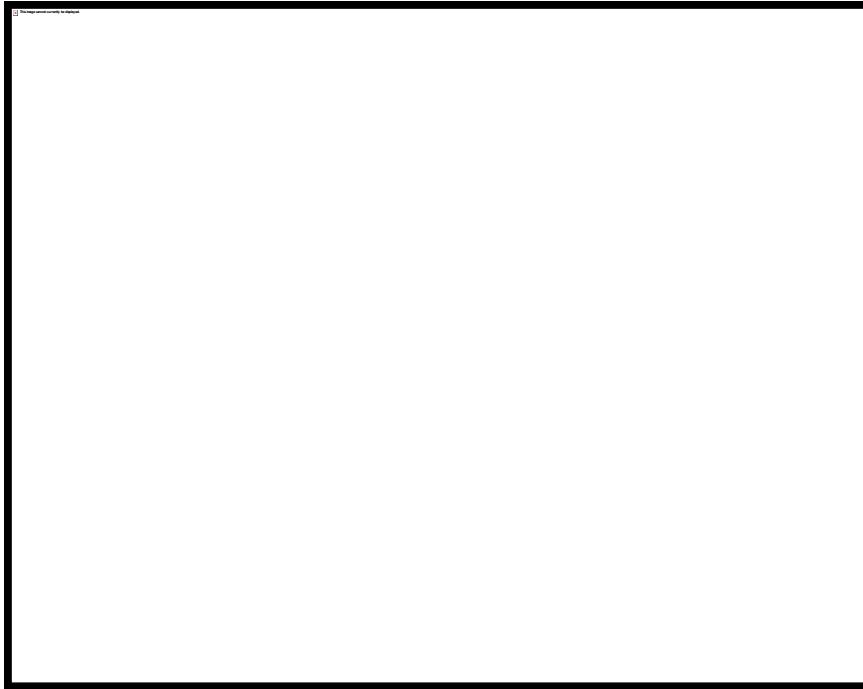
Leann L. Birch, Jennifer Orlet Fisher, and Kirsten Krahnstoever Davison

HOW GOVERNMENT | Health

## Current Research

# Parental Feeding Practices Predict Authoritative, Authoritarian, and Permissive Parenting Styles

LAURA HUBBS-TAIT, PhD; TAY SEACORD KENNEDY, PhD, RD; MELANIE C. PAGE, PhD; GLADE L. TOPHAM, PhD; AMANDA W. HARRIST, PhD



## The associations between feeding difficulties and behaviours and dietary patterns at 2 years of age: the ALSPAC cohort

Kate Northstone and Pauline Emmett

School of Social and Community Medicine, University of Bristol, Bristol, UK

## ORIGINAL RESEARCH

## Child feeding practices and perceptions of childhood overweight and childhood obesity risk among mothers of preschool children

Patrick CROUCH, Jennifer A. O'DEA and Robert BATTISTI

Faculty of Education and Social Work, University of Sydney, Sydney, New South Wales, Australia

## Controlling Feeding Practices: Cause or Consequence of Early Child Weight?

Claire Victoria Farrow, PhD<sup>a</sup>, Jacqueline Bilsett, PhD, CPsychol<sup>b</sup>

<sup>a</sup>School of Psychology, Keele University, Keele, Staffordshire, United Kingdom; <sup>b</sup>School of Psychology, University of Birmingham, Edgbaston, Birmingham, United Kingdom

The authors have indicated they have no financial relationships relevant to this article to disclose.

# Appetite Regulation

## Eating in the Absence of Hunger (EAH)

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Join at  
**slido.com**  
**#1447 011**



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# How are we currently feeding?

**90%** Interfere with children's eating

**85%** Pressure kids to eat more with praise/rewards

**48%** Pressure kids to eat when they aren't hungry

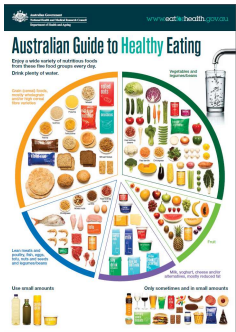
**31%** reward the child for eating 1 bite of everything on the plate



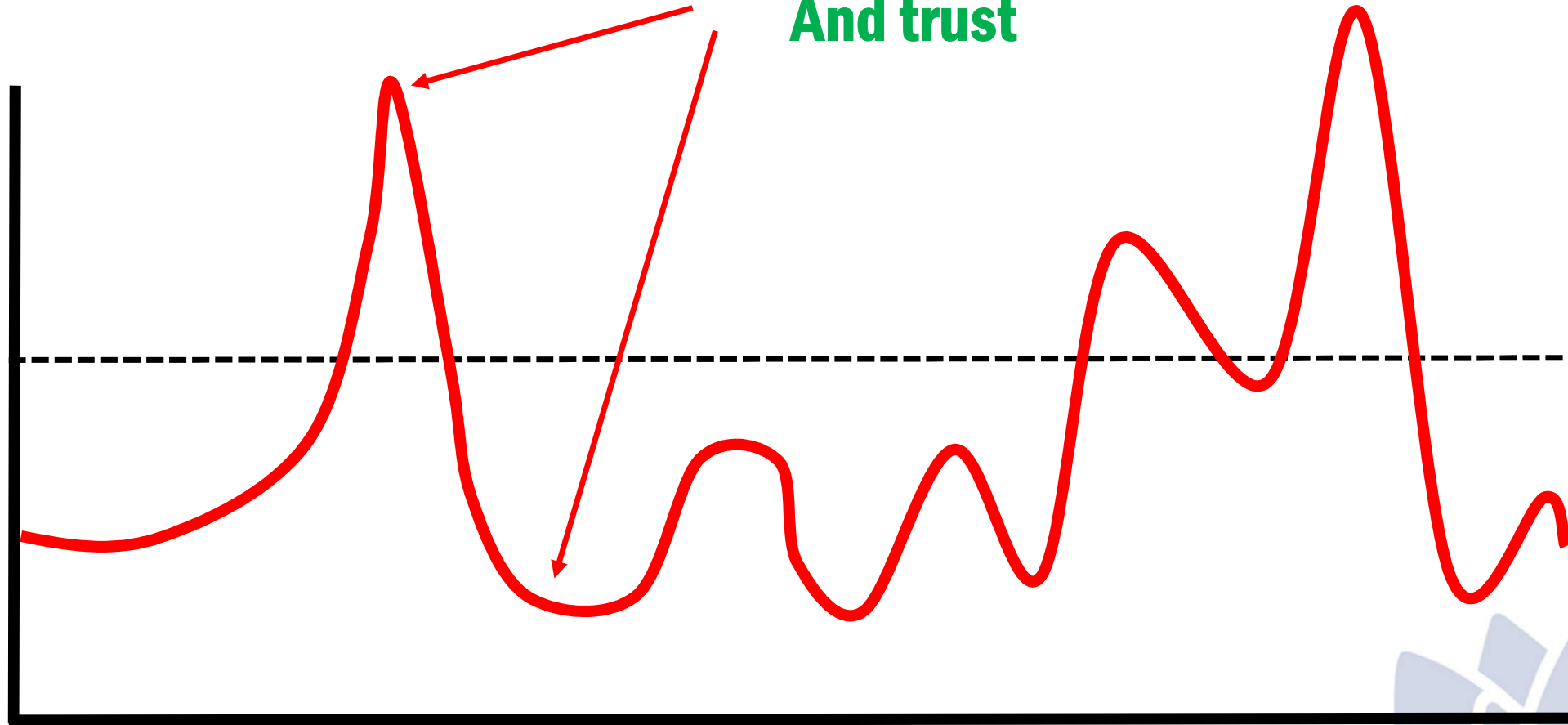
# How children eat

**Food**

**Your bubs  
guidelines**



**Courage  
And trust**



**Days/weeks**



Health



Ellyn Satters

# Division of Responsibility

**I choose..**

**What** food to serve

**When** to serve it

**Where** to serve it

NUTRITION

**I choose..**

**Whether** to eat or not

**How much** to eat

**What to eat** from plate

PRESSURE

MEALS

RESTRICTION



**Children choosing the menu**



# Pressure to eat Outcomes

**The non-compliant child eats less compliant child eats more & overeats**

**Battles increase**

**Less willingness to eat the food with pressure applied**

**Lost ability to regulate appetite (research has shown even before 2 years)**

**V**egetables are good for you but taste bad



**Children ate less vegetables the more they believed that vegetables are good for one's health and the stronger their mothers' concern for disease prevention (Havermans 2010)**

# Pressure to eat

## Guiding them around the plate



They don't eat the 'healthy' things you think they should



You guide them towards those foods and suggest eating



They eat because they're told to, or to just to please you



Short term they eat a bit more of the food but reject it long term as they remember being persuaded to eat it



"Eating all my meal is not the goal"

"It's to stop eating when i've had enough!"

# Restricting the AMOUNT of food

But I'm not satisfied yet!



Child deemed to be overweight or eat 'too much'



Amounts provided at meals is limited or 'Portion Controlled'



Leaves table unsatisfied and becomes preoccupied with food



Learns to overeat when gets the chance, as unsure when will be able to be satisfied next.

[picnicproject.com.au](http://picnicproject.com.au) 

# **Food Restriction Outcomes**

**Lower child weight at age 2 years but higher weight later in childhood**

**Disinhibited eating - can cause weight gain later in childhood**

**Greater BMI increase age 4 - 13 (independent of weight)**

**Adolescents more likely to be depressed have suicidal thoughts/attempts**

**Children more likely to view own bodysize negatively-try and lose weight**

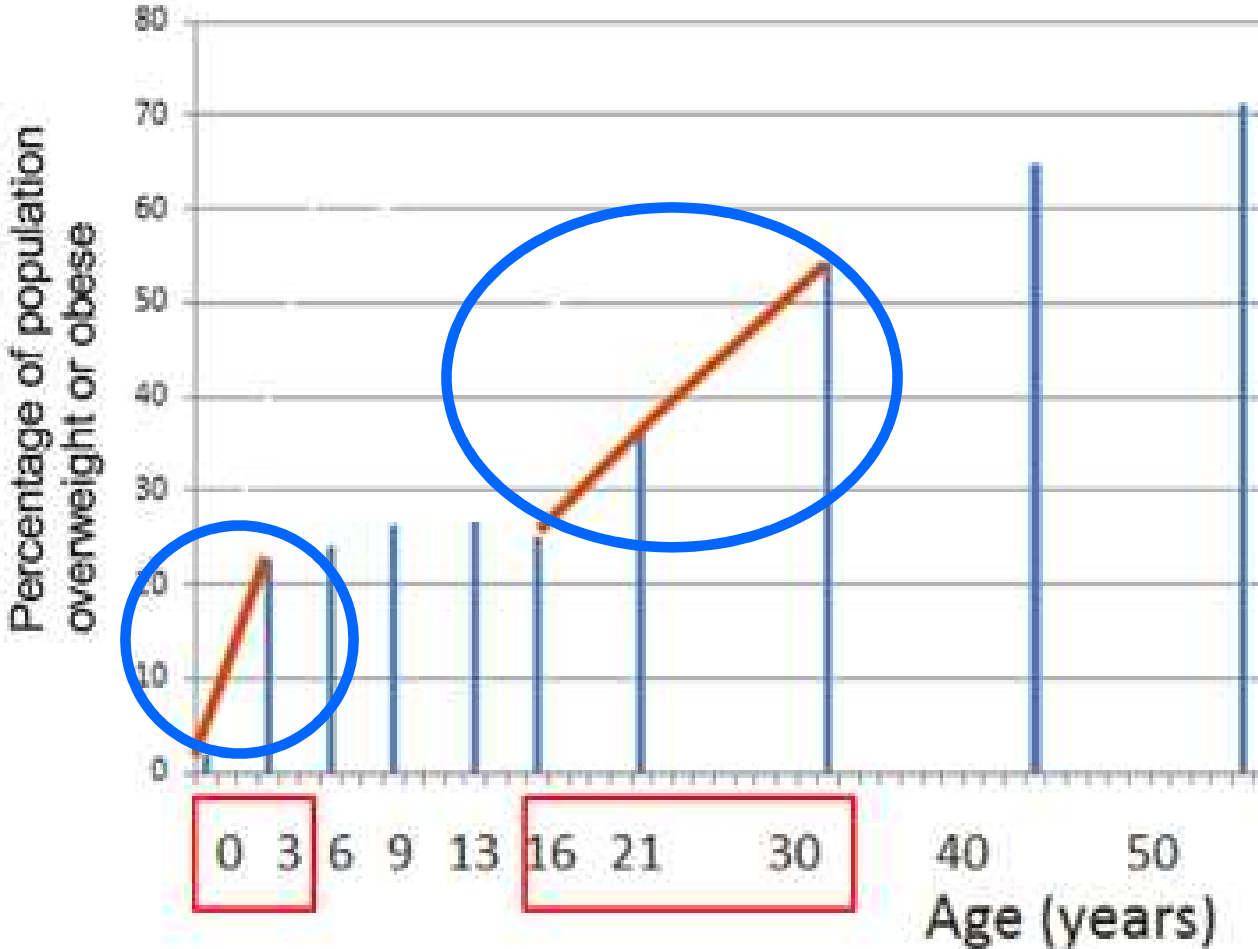


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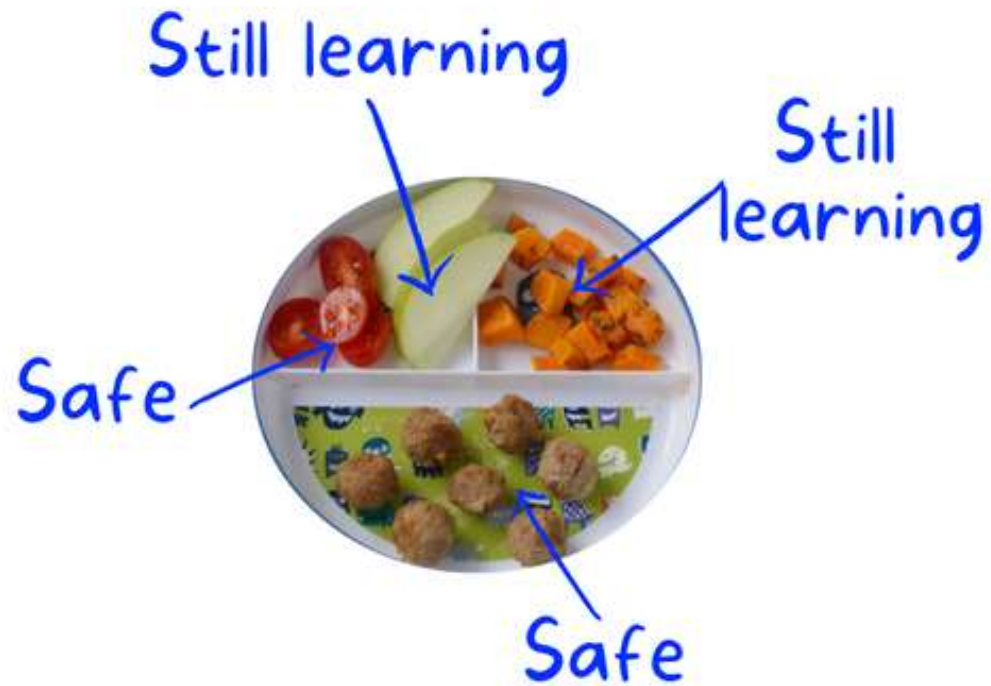




# The Long Game.....



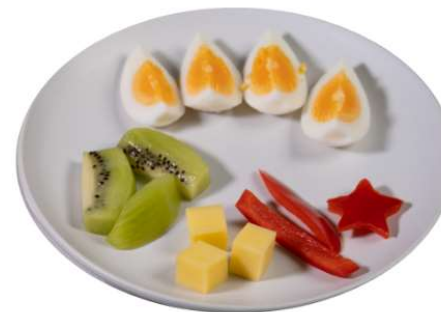
# Strategies for food provision



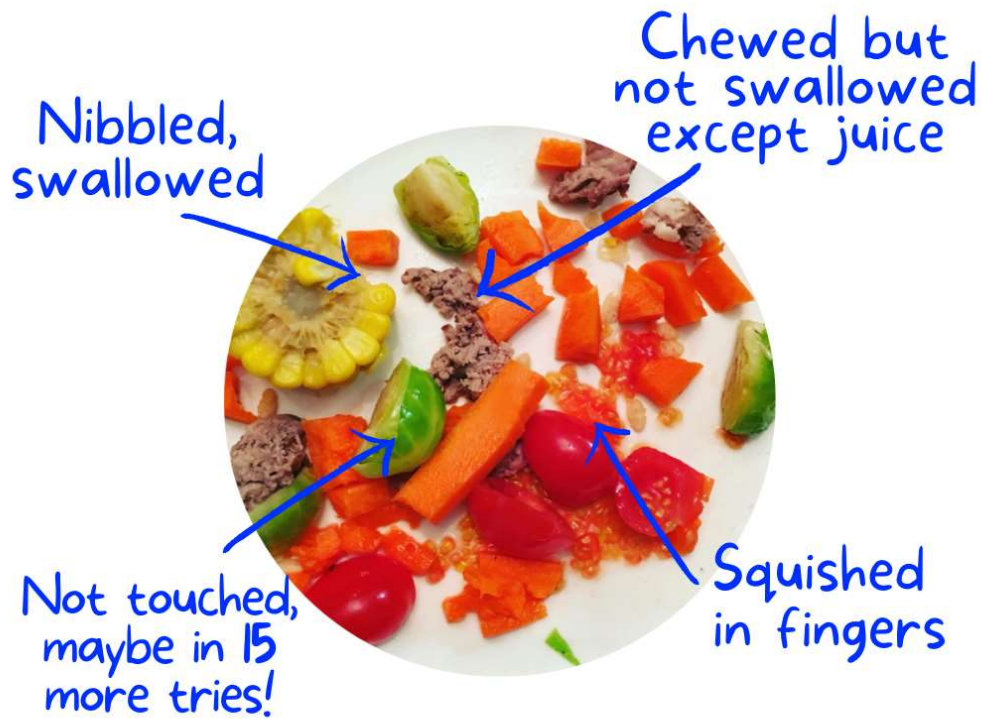
Provide a mixture of safe and still learning foods....



You can't make them eat it or like it ..... but you can change up how it's prepared and served!



# Addressing normal 'learning to eat' and anxiety



## Dinners Ready!



Not every meal has to be perfect.... there's another **30** dinners and **120** other meals this month!



Parent anxiety

Natural caution with new food

Considerate of 'learning to eat'

Evidence based feeding practices



Parent anxiety



Picky/fussy eating

Variety

Quality



Amount

Relationship

